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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/606,857	06/28/2000	Jiang Li	MS1-475US	6925

22801 7590 05/16/2006

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EXAMINER

JONES, HEATHER RAE

ART UNIT PAPER NUMBER

2621

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

09/606,857

Applicant(s)

LI ET AL.

Examiner

Heather R. Jones

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2621

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 11 January 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: 39-62.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See attached sheet.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

***Response to Arguments***

1. Applicant's arguments filed January 11, 2006 have been fully considered but they are not persuasive.

The Applicant argues on page 9, line 8 – page 10, line 4 that the Chen reference fails to anticipate independent Claim 39 because Chen does not disclose a viewing position representing a location of an observer that is observing the surrounding scene; and determining a viewing ray passing through the pixel in a direction of viewing of the observer. Furthermore, The Applicant argues on page 13, line 27 – page 14, line 6 that the Chen reference fails to disclose a viewing ray passing through the pixel in an image to be rendered as representation of the view of the surrounding scene. The Examiner respectfully disagrees. The column and lines cited by the Applicant (col. 3, lines 28-29) about the O/P sensor are directed to the O/P sensor during capturing of the images. However, the Examiner cites col. 3, lines 44-53 which are directed to the O/P sensor during playback of the images. The O/P sensor during playback of the images represents the viewer's position and orientation. Movement of the camera during playback represents movement of the viewer and the images are changed accordingly to represent a virtual environment, which encompasses determining a viewing ray passing through the pixel in a direction of viewing of the observer.

The Applicant argues on page 10, line 22 – page 11, line 14 that the Chen reference fails to disclose interpolating based on the plurality of longitudinal

image arrays or plurality of longitudinal image columns to determine the display value for the pixel. The Examiner respectfully disagrees. In the Chen reference, when the observer is viewing the panoramic image on the display the observer can zoom in closer to a desired part of the scene (which would represent the observer walking closer to the scene). It is inherent and well-known in the art that when the camera zooms in closer interpolation is occurring in order to display the picture at a larger scale than the image was initially taken. Furthermore, one or more of the image columns would be used in order to fill the display device.

The Applicant argues on page 11, line 25- page 12, line 18 that the Chen reference fails to disclose a plurality of image columns to use comprises: calculating an angle between the viewing ray and a camera direction at the intersection point; and identifying image columns based on the calculated angle. The Examiner respectfully disagrees. The VR camera originally took several images and then combined them into one huge panoramic image as can be seen from Fig. 3 of the Chen reference. Then the orientation of the VR camera is used to select which portion of the panoramic image is displayed so that a user can effectively pan about the panoramic image by changing the orientation of the camera. Furthermore, while the panoramic image is being displayed the orientation of the VR camera corresponds to the observer's viewing ray and the camera direction would refer back to the direction the camera was originally in when the camera took the images. Therefore, it is inherent that the angle

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between the viewing ray and the original camera direction is calculated in order to determine what portion of the image the viewer is observing.

### ***Conclusion***

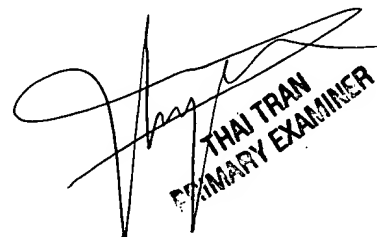
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heather R. Jones whose telephone number is 571-272-7368. The examiner can normally be reached on Mon. - Thurs.: 7:00 am - 4:30 pm, and every other Fri.: 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Heather R Jones  
Examiner  
Art Unit 2621

HRJ  
May 8, 2006

  
THAI TRAN  
PRIMARY EXAMINER